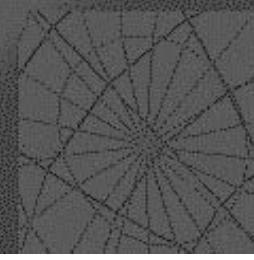


# Applied Inverse Problems

# 2005



# AIP 2005

26-30 June 2005

Royal Agricultural College, Cirencester, UK

## Chairs

**Simon Arridge**

**Roy Pike**

**William Rundell**

## Steering Committee

**Mario Bertero**

**Daniela Calvetti**

**Tony Chan**

**David Colton**

**Heinz Engl**

**Joyce McLaughlin**

**Pierre Sabatier**

**Erkki Somersalo**

**Gunther Uhlmann**

## Local Organising Committee

**Slava Kurylev**

**William Lionheart**



## Invited Speakers

<b>U. Ascher</b>	"Artificial time integration and inverse problems"
<b>J. Berryman</b>	"Time-reversal data processing and its relation to other linear focusing and imaging methods"
<b>L. Borcea</b>	"Theoretical and computational aspects of statistically stable imaging in random media"
<b>A. Grunbaum</b>	"Nonlinear inverse problems for multiterminal networks"
<b>V. Isakov</b>	"Increased stability in continuation of wave fields and inverse problems in acoustics"
<b>J. Kaipio</b>	"Recent results in the modelling of approximation errors in inverse problems"
<b>R. Kress</b>	"Conformal mapping and electrostatic imaging"
<b>M. Lassas</b>	"Anisotropic inverse problems"
<b>A. Nachman</b>	"Progress on analytic inversion methods"
<b>S. Osher</b>	"Using geometry and iterated refinement for inverse problems"
<b>L. Päiväranta</b>	"Calderon's inverse conductivity problem and quasiconformal maps"
<b>G. Papanicolaou</b>	"Interferometric array imaging"
<b>T. Poggio</b>	"Theory of learning"
<b>L. Reichel</b>	TBA
<b>O. Scherzer</b>	"Nonconvex regularization for inverse problems"
<b>J. Sylvester</b>	"Locating a time harmonic scatterer or source"
<b>R. Vogelius</b>	"Recent results concerning electromagnetic imaging for small inhomogeneities"
<b>M. Yamamoto</b>	"Mathematical analysis and numerical solutions of inverse problems by Carleman estimates"
<b>V. Vasin</b>	"Regularization and iterative approximation of non-smooth solutions for ill-posed problems"

## Mini Symposia

**Title:** "Fundamental issues of uniqueness and stability in inverse problems"

*Organisers:* G. Alessandrini and S. Kurylev

**Title:** "3D Electromagnetic Imaging"

*Organisers:* M. Hanke and A. Kirsch

**Title:** "Microwave Imaging"

*Organisers:* M. Cheney and F. Natterer

**Title:** "Inverse Problems in Wave Propagation"

*Organisers:* W. Symes and G. Uhlmann

**Title:** "Optical and Astronomical Imaging"

*Organisers:* M. Bertero and R. Pike

**Title:** "Industrial and Financial Applications"

*Organisers:* H. Engl and W.R.B. Lionheart

**Title:** "New hybrid methods in medical imaging utilizing ultrasound data."

*Organiser :* J. McLaughlin

**Title:** "Level Sets and Geometry Based Regularisation"

*Organisers:* T.Chan and X-C Tai

**Title:** "Bayesian and statistical Methods"

*Organiser :* E. Somersalo